NONAQUEOUS ELECTROLYTE SECONDARY BATTERY

Abstract:

PURPOSE: To provide a nonaqueous electrolyte secondary battery with high safety and high energy density by containing an organic compound having a specific p-electron orbit in a nonaqueous electrolyte.

CONSTITUTION: A nonaqueous electrolyte secondary battery uses a metal mainly comprising lithium or a carbon material capable of doping/undoping lithium in a negative electrode and a composite oxide of lithium and a transition metal in a positive electrode. An organic compound having a molecular weight of

500 or less and such a p-electron orbit that having a reversible oxidation reduction potential in the potential nobler than the positive electrode potential in full charge of the secondary battery is contained in the nonaqueous electrolyte. This organic compound is preferably a benzene group compound represented by the formula. In the formula, A1-A6 show hydrogen or an electron donor group.